

JOINT WARFIGHTERS JOINT TEST AND EVALUATION BACKGROUND PAPER

Subject. Joint Warfighters (JWF) Joint Test and Evaluation (JT&E) Background Paper

Program Sponsor. JWF is sponsored by the United States Army Training and Doctrine Command (TRADOC) and is chartered by the Director, Strategic and Tactical Systems, Office of the Secretary of Defense.

Background

The Joint Warfighters (JWF) Joint Test and Evaluation (JT&E) is an OSD DD, DT&E/S&TS sponsored program. JWF evaluates concepts and addresses needs and issues that occur in joint military operations. The JT&E program consists of three phases: (1) the nomination process, (2) the Joint Feasibility Study to determine whether nominated studies are needed and feasible, and (3) the actual test and evaluation.

Phase 1 of the JWF JT&E began in late 1994 as the result of an Army (III Corps) nomination, and the Department of the Army's Force Development Directorate approved it in early 1995. On 8 Jun 95, the OSD Deputy Director, Test and Evaluation, authorized Phase 2, the Joint Feasibility Study, to begin. On 26 Jun 97, the Senior Advisory Council (SAC) recommended that JWF be chartered. The Director, Test, Systems Engineering and Evaluation chartered the JT&E on 14 Aug 97. The JWF program is currently conducting the JT&E (Phase 3). The JWF team, directed by Colonel Rich Kniskern (USA), is located adjacent to the Joint Forces Command's Joint Training, Analysis, and Simulation Center (JTASC) in Suffolk, VA.

On 2-3 Oct 96, the Air Land Sea Application Center (ALSA) at Langley AFB, VA hosted a joint working group to revalidate the basic problem area. Unanimous consensus was shortly achieved that directed the focus of JWF's efforts towards time-sensitive targets. According to Joint Publication 1-02, time-sensitive targets are *"those targets requiring immediate response because they pose (or will soon pose) a clear and present danger to friendly forces or are highly lucrative, fleeting targets of opportunity."*

Intensive examination of the problems revealed specific difficulties in timely and effective coordination, deconfliction, and synchronization, which increased execution timeliness and caused the recurring need to create operational workarounds. The group identified the *find, locate, identify, plan, task, and strike* functions as pertinent to timely target attack. This led the JWG to recommend limiting the JWF problem statement to targets that are considered critical, unplanned, and for which rapid engagement was required. The group also recommended limiting the scope to surface targets, excluding airborne and submerged targets; thus, the term time-sensitive surface target (TSST) was introduced. This then led to JWF's problem statement:

Joint military operations and exercises have revealed difficulties in effectively and efficiently prosecuting time-sensitive surface targets in an area of responsibility and/or joint operating area.

During the Joint Feasibility Study (Phase 2), the JWF team determined that all five of the necessity criteria established in the OSD *Joint Feasibility Study Handbook* had been met:

- a. JWF meets all four stated purposes of a JT&E.
- b. The issues and objectives are joint and require joint efforts and solutions.
- c. This study does not duplicate any other sanctioned effort.
- d. The problem has sufficient magnitude and significance to warrant resource expenditure.
- e. The services are likely to implement and use the JT&E results.

Purpose

Improve the prosecution of time-sensitive surface targets (TSST) in the joint battlespace.

During wartime and in training exercises, joint task force commanders have had trouble prosecuting TSSTs in an effective and efficient manner when employing joint firepower. The key issue is timeliness; that is, the difficulty of **immediately** prosecuting surface targets, including those that are on attack plans such as the Joint Forces Air Component Commander's (JFACC) Air Tasking Order (ATO) or the Joint Forces Land Component Commander's (JFLCC) Attack Guidance Matrix (AGM). The key issues raised as the result of refining the results of the JWG are:

1. Is the target acquisition process adequate to effectively support joint targeting of TSSTs? (Sub-issues focus on improvements in the detection, identification, and location functions.)
2. Is the weaponeering assessment process adequate to effectively support joint targeting of TSSTs? (Sub-issues focus on the intelligence analysis and operational assessment functions.)
3. Is the force application process adequate to effectively support joint targeting of TSSTs? (Sub-issues focus on force selection and force tasking functions.)
4. Is the execution planning/force execution process adequate to effectively support joint targeting of TSSTs? (Sub-issues focus on attack planning and attack execution functions.)
5. Were time-sensitive surface targets successfully engaged? (Sub-issues focus on coordination, deconfliction, synchronization, and interoperability.)

During JT&E Phase 3 testing, measurements are being collected during unified command exercises to determine the joint task force's ability to process and act on TSST information. Emphasis will be placed on measuring the timeliness, accuracy, and completeness of actions required to perform the functions of the joint targeting cycle. All functions and, whenever possible, terms are extracted from approved joint publications. Some of the areas of concern being investigated include:

1. What are the joint targeting sub-processes, and how are they performed, controlled, and documented? Can they be improved?
2. Is the joint targeting organizational structure adequate to effectively prosecute TSSTs?

3. Are joint forces training adequate to direct and execute TSST processes?
4. Do senior leaders have the necessary expertise to employ TSST processes? Are they actively involved in the execution?
5. What joint targeting technology, equipment, and decision support tools are available now and planned for the future? Are they interoperable? Are they integrated?
6. Are personnel appropriately apportioned to execute TSST processes?

Program Organization

The JWF organization is composed of a Test Director (Army Colonel) and 33 other authorized military personnel (18 from the Army, 7 from the Air Force, 3 from the Navy and 5 from the Marines). Currently there are two unfilled Army vacancies, 2 unfilled Navy and all the Marines billets are unfilled. There are four government service employees authorized and 36 contractors authorized for a total of 73 personnel authorized. The current manning level is 61.

Test Approach

Various exercises were investigated by JWF to determine the best fit for observing and documenting the joint process for prosecuting TSSTs. The selected exercises included the INTERNAL LOOK (IL-XX) series, BRIGHT STAR BS-XX) series, BLUE FLAG (BFX-X) series, ACOM/JFCOM exercise Unified Endeavor (UE-XX) series, and the ULCHI FOCUS LENS (UFL-XX) series. Due to cancellations, scheduling conflicts and the inability of the exercises to provide the structure and process for observing TSST prosecution JWF declined to participate in the BRIGHT STAR and Unified Endeavor series of exercises.

JWF followed the following schedule and milestones:

- Formally chartered as Joint Warfighters joint Test and Evaluation -----14 August 1997
- Joint Feasibility Study Final Report approved -----October 1997
- Analysis Plan for Assessment approved -----October 1997
- Formalization of Memoranda of Agreement ----- On-going
- Observe UFL-98 ----- August 1998
- Develop Data Management and Analysis Plan (DMAP) -----December 1998
- Develop Program Test Plan (PTP)-----December 1998
- Joint Pub 3-60 Technical Review Authority ----- August 2000
- Baseline TSST process UFL-99 ----- August 1999
- Baseline/Enhancements BF00-2 ----- March 2000
- Enhanced UFL-00 ----- August 2000
- Baseline IL-01 -----November 2000
- Enhanced BF01-2 ----- March 2001
- Final Report -----December 2001
- Complete drawdown of JWF -----March 2002

Accomplishments

JWF observed its first exercise in August of 1998, ULCHI FOCUS LEN 98 (UFL-98). The observations were used develop a process documentation and data collection plan for future exercises. IL-98 was scheduled to be the second exercise observed by JWF but was cancelled due to real world considerations. In August of 1999 JWF attended UFL-99 and baselined the TSST process.

The baseline determined in UFL-99 coupled with the observations from UFL-98 and the subject matter expertise resident at JWF allowed JWF to propose certain enhancements to the TSST process for the Korean Theater of Operations to be tested in UFL-00. CENTAF procedures were observed and documented at the Air Force exercise BF00-2 in March of 2000. JWF provided a full up data collection capability for the exercise. Currently, JWF is in the process of analyzing the data to develop further recommendations for enhancements. Throughout this year JWF personnel attended various briefings, conferences and demonstrations ranging from the Navy's Fleet Battle Experiments (FBE), Testing Symposiums, and various exercise planning conferences to provide JWF with insight into other processes and developments which could influence and change the TSST process in the future. JWF also provided briefings and assistance to other commands, such as JFCOM J-7 and J-9, the NWDC, several ACTDs, and other related activities on JWF's findings to date and JWF capabilities to assist them in modeling and simulation, data collection and test methodologies. JWF also provided a final review and recommendation for Joint Pub 3-60.

A year's worth of detailed planning, coordination, and preparation culminated with the deployment of the Joint Warfighters Joint Test Force in August 2000 to the Republic of Korea. Fifty-five personnel were dispatched to eight separate locations to conduct joint test activities in conjunction with UFL 00. With the single exception of JWF's deployment to UFL last year this effort is the largest OCONUS deployment in the history of the JT&E program. Initial analysis and review indicate that the test effort was completely successful. Deployment, test execution, and redeployment were accomplished without injury or significant incident. All test articles (enhancements) that were installed received favorable review by the participants. Subsequent evaluation of collected data will be used to determine their quantitative value. Based on the requests of the test participants with concurrence and support from theater senior leadership, all test enhancements have been left in-place for wartime application and on-going training.

Planned Activities

The final year of testing for JWF promises to be both challenging and rewarding. JWF will test at IL-01 and provide CENTCOM with documentation of their process for TSSTs and, after analysis of the data recommended enhancements. JWF will also participate in BF01-2 for enhancement follow-up. This may be replaced by attending a new exercise, GULF FLAG (GF01) in Saudi Arabia as the second in the BF series. The fledgling enhancements, which were turned over to USFK, will require nurturing to allow them to become fully established. Throughout IL-01 and continuing to completion of the JT&E, JWF will be developing the final report and legacy products. JWF is scheduled to complete analysis and report in December of 2001 with final closure in March of 2002.

Legacy Products

The installed enhancements to support USFK TSST efforts focus on tools and procedures for a collaborative environment—interactive web based processing, an improved and multi-dimensional communications environment, cross-service cuing capabilities, and the framework for a joint targeting and tracking tool. Preliminary feedback indicates wide acceptance of the enhancements and their positive contribution to the process by making the exchange of information easier, faster and providing a record for follow-up. Both the DCINC and the CJ-3 expressed satisfaction with the enhancements, their desire to retain and grow the enhanced capability, and a willingness to assume future operational costs.

As a further legacy JWF has provided and will provide the following value added and return on investment to the warfighter:

- Introduction of the TSST concept
- IDEF “as is” modeling of the 7th Air Force and 9th Air Force process
- Hard data
- Documentation of the process
- Evaluation of proposed enhancements
- Recommendations for joint training
- Recommendations for Joint Tactics, Techniques and Procedures (TTPs)
- Process recommendations for new architecture

JWF will continue as review authority on Joint Publications 1-02 and 3-60 and as a member of the JWAC Working Group and ALSA Working Group. JWF will continue to be a member of the TPSO ACTD Council of Colonels. JWF is in the process of formalizing the legacy products and determining which organizations would be best suited to retain the products and information developed. JWF has established contacts with several agencies, specifically the Joint Targeting School, USJFCOM/J-7, USJFCOM/J-9, and USFK to complete the process of bridging products to the warfighters’ future

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